

Percentages %

divide 100

<u>Fraction</u>	<u>Percentage</u>	<u>Decimal</u>
$\frac{12}{100} = \frac{3}{25}$	12%	0.12
$\frac{58}{100} = \frac{29}{50}$	58%	0.58
$\frac{40}{100} = \frac{2}{5}$	40%	0.40
$\frac{26}{100} = \frac{13}{50}$	26%	0.26

$$\frac{7}{100}$$

$$7\%$$

$$0.07$$

$$\frac{70}{100} = \frac{7}{10}$$

$$70\%$$

$$0.7$$

Percentage

percent means "out of 100"; a percentage is a ratio in which the denominator is 100.

Jennifer got 14 out of 20 on her math test, what percentage did she make on her test?

$$\frac{14}{20}$$
$$= 0.7 \Rightarrow 70\%$$



Setting a Price



Markup

subtract
The difference between the amount a dealer sells a product for and the amount he or she paid for it.

$$\begin{array}{r} 10.00 \leftarrow \text{selling price} \\ - 8.00 \leftarrow \text{purchase price / cost to make} \\ \hline \$2.00 \leftarrow \text{markup} \end{array}$$



Cost to make:
\$8.00



Percent Markup



To find Markup as a percentage you always divide the markup ⁽²⁾ by the original price ₍₈₎



Cost to make:
\$8.00

Markup
Original

$$\begin{aligned} &= \frac{\$2.00}{\$8.00} \\ &= 0.25 \\ &= 25\% \end{aligned}$$



Cost to make:
\$8.00



The markup
of the T-shirts
is 45%.

There are two ways to calculate the selling price.



1. Cost x Percent *as a decimal* OR

$$\$8.00 \times 0.45 = \$3.60 \leftarrow \text{markup}$$

2. Cost + Markup

$$\$8.00 + \$3.60 = \$11.60 \leftarrow \text{selling price}$$

100% + 45% = 145%

Cost x Percent *as a decimal*

$$\$8.00 \times 1.45 = \$11.60$$

Includes 100% of the original price and the 45% mark up.



What else
affects
selling price?





Goods and Services Tax

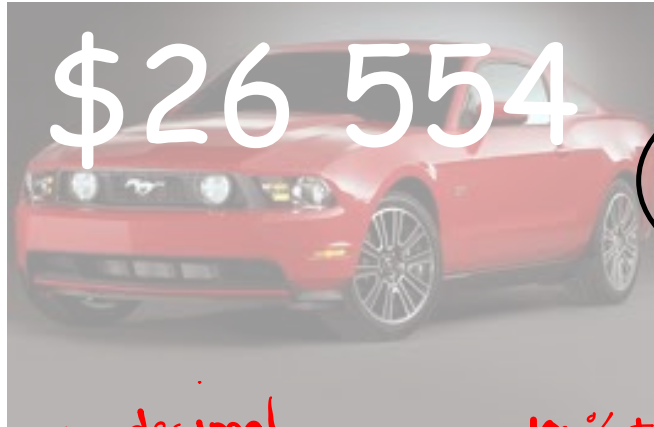
Province	GST	PST	HST
NS			15%
NB			15%
NFLD			15%
PEI			15%
BC			12%



Provincial Sales Tax



Harmonized Sales Tax



15%
Tax

- as a decimal* *100% + 15% = 115%*
1. Cost x Percent (tax) OR Cost x Percent
- $\$26\,554.00 \times 0.15$
 $= \$3\,983.10 \leftarrow \text{tax}$
- $\$26\,554.00 \times 1.15$
 $= \underline{\underline{\$30\,537.10}}$
2. Cost + Tax
- $\$26\,554.00 + 3\,983.10$
 $= \underline{\underline{\$30\,537.10}}$
- Includes 100% of the original price and the 15% tax.



Arlene purchases fabric at a wholesale price for her custom sewing business in Cavendish, PEI.

She pays \$46.00/m.

She charges a markup of 20% on the fabric.

What will Arlene charge her clients per metre?

OR

$$\begin{aligned}
 &1. \text{ Cost x Percent} \\
 &= \$46.00 \times 0.20 \\
 &= \$9.20
 \end{aligned}$$

$$\begin{aligned}
 &2. \text{ Cost + Markup} \\
 &= \$46.00 + \$9.20 \\
 &= \$55.20
 \end{aligned}$$

$$\begin{aligned}
 &100\% + 20\% = 120\% \\
 &\text{Cost x Percent} \\
 & \$46.00/m \times 1.2 \\
 &= \$55.20/m
 \end{aligned}$$

Jennifer bought chairs at a wholesaler for \$60.00.
 She is now selling them in her boutique for \$96.00.
What is the percentage of markup Jennifer used when setting her price?

$$\text{Percent markup} = \frac{\text{markup}}{\text{original}}$$



(i) Find markup:

$$\begin{array}{r} \$96.00 \leftarrow \text{selling price} \\ - \$60.00 \leftarrow \text{cost to purchase} \\ \hline \end{array}$$

$$\begin{array}{r} - \$60.00 \leftarrow \text{cost to purchase} \\ \hline \end{array}$$

$$\$36.00 \leftarrow \text{markup}$$

(ii) Find the percent markup:

$$\text{percent markup} = \frac{\text{markup}}{\text{original (cost to purchase)}}$$

$$= \frac{36.00}{60.00}$$

$$= 0.6$$

$$= 60\%$$



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